

Amendments to the Claims

1. *(Original)* A semiconductor device having a first and an opposite second side, comprising:

- a substrate comprising a semiconductor layer and an electrically insulating layer, and being present on the first side of the device;
- an integrated circuit provided with a plurality of semiconductor elements, which are defined in and/or on the semiconductor layer and are interconnected according to a desired pattern in an interconnect structure;
- a first contact face that is present on the first side of the device;
- a second contact face that is present on the second side of the device, and is connected to the interconnect structure;

wherein:

- an electrically insulating support layer is present, which covers on the second side the integrated circuit and extends laterally around the integrated circuit in a non-active area, through which support layer a vertical interconnect is present to connect the second contact face with the interconnect structure;
- the semiconductor layer of the substrate is laterally partially removed so as to be absent in the non-active area; and
- the first contact face is connected to the interconnect structure through a vertical interconnect.

2. *(Original)* A semiconductor device as claimed in claim 1, characterized in that the vertical interconnect to the first contact face is present in the non-active area, the first contact face being defined in an electrically conducting layer.

3. *(Currently Amended)* A semiconductor device as claimed in ~~claim 1~~ or claim 1, characterized in that the electrically insulating layer is laterally substantially continuous so as to be present in the non-active area.

4. *(Original)* A semiconductor device as claimed in claim 1, characterized in that the interconnect structure is provided with a first and a second via pad, which are present

in the non-active area, and at which pads the first and the second vertical interconnects respectively are present.

5. *(Original)* A semiconductor device as claimed in claim 4, wherein the via pads are present on the electrically insulating layer that is part of the substrate.

6. *(Currently Amended)* A semiconductor device as claimed in ~~claim 4 or~~ claim 4, characterized in that the second via pad and the second vertical interconnect comprise a ductile material.

7. *(Original)* A semiconductor device as claimed in claim 1, characterized in that the support layer comprises an organic material.

8. *(Currently Amended)* An identification label comprising the semiconductor device according to ~~any of the claims 1 to 7~~ claim 1 and an antenna for wireless transmission.

9. *(Currently Amended)* An information carrier comprising the semiconductor device according to ~~any of the claims 1 to 7~~ claim 1.

10. *(Original)* A method of manufacturing a semiconductor device comprising the steps of:

- providing a substrate with a semiconductor layer and an electrically insulating layer, an integrated circuit provided with a plurality of semiconductor elements being defined in an active area, the semiconductor elements being mutually interconnected according to a desired pattern in an interconnect structure, which interconnect structure comprises a first and a second via pad, which via pads are present in an area that is laterally substantially outside the active area;
- applying a support layer of an electrically insulating material on the second side and providing a contact window in the support layer corresponding to the second via pad;

- applying electrically conductive material in a desired pattern on the second side, therewith providing a second contact face and a second vertical interconnect between said contact face and the second via pad;
- attaching the substrate on its second side to a carrier with removable attaching means;
- thinning the substrate from the first side, so that the insulating layer of the substrate is exposed at least in some non-active areas laterally outside and around the active area;
- providing a first contact face on the first side, which is connected to the first via pad through a first vertical interconnect extending at least through the insulating layer; and
- removing the thus obtained semiconductor device from the carrier.

11. *(Original)* A method as claimed in claim 10, wherein the oxide layer is buried inside the semiconductor substrate, the substrate further comprising a base layer and an active layer, which base layer is removed in the thinning step and on a surface of which active layer the semiconductor elements are defined.

12. *(Original)* A method as claimed in claim 10, wherein the first vertical interconnect is provided as part of the integrated circuit.